

## Effect of Import Restriction on Production and Distribution Efficiencies on Agribusiness of Local Rice in Maiduguri Metropolis, Nigeria

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### Abstract

*Import restriction by the federal government of Nigeria is one of the challenges facing majority of agribusinesses in Nigeria, particularly rice production and distribution. Therefore, the study is informed by the scarcity of studies on import restriction, production efficiency and distribution efficiency, predominantly in the study area. The study investigated the influence of import restriction on production efficiency and distribution efficiency of agribusiness of local rice. A total of 670 questionnaires were distributed to the local rice farmers and rice business owners in Maiduguri metropolis, Borno state through the use of Stratified and simple random sampling techniques the sample of the study were stratified into two groups, rice producers and rice distributors. While the simple random sampling technique was employed to identify and selected the respondents of the study. The results revealed that Import Restriction has a significant positive effect on Production Efficiency and Distribution Efficiency of Agribusiness Performance of Local Rice Businesses in Maiduguri Metropolis. Therefore, it is recommended that Nigerian rice farmers, government and other stakeholders should intensify their efforts to produce more rice efficiently and effectively by only planting the latest variety of rice so as to produce more tonnage of rice.*

**Keywords:** Import Restriction, Production Efficiency, Distribution Efficiency, Agribusiness, Local Rice Businesses

### 1. Introduction

Agribusiness performance is a term with a broad-spectrum of meaning. Its meaning can only be placed in perspective by the circumstance which it defines. Agribusiness performance is a measure of the degree to which objectives of the agribusinesses are met or the rate of possible achievement of agribusiness goals over a period (Terwase & Madu, 2014). Adding to this truism, Kite et al., (2024) adduced that Agribusiness performance is primarily seen as a multidimensional set of criteria that involve several proxies like; profitability, turnover, capital formation, return on asset, return on investment, quality, market shares, and so on (Illic et al., 2024). Performance is multifaceted, and so are its proxies in respective disciplines such as sciences, engineering, social and management sciences as well as in agricultural businesses.

Agricultural businesses are agricultural activities conducted on a commercial basis. It also describes a group of industries dealing with agricultural produce and services (Amankwah & Gwatidzo. 2024). Agribusiness is the breath of businesses engaged in all aspects of agriculture, from the provision of inputs such as seeds and fertilizer, to farming, production, processing, marketing, distribution, and retail sales (Alhassan, et al., 2024). The success of farming in emerging economies like Nigeria, has been affirmed to depend on agribusiness model and not subsistence farming that is currently pervasive in a nation like Nigeria. This is particularly so in rice production chain; an agricultural product that is used to judge global food security of nations. Hence, successive Nigerian government have deployed huge national resources in the production of rice. This is because, if the nation is self-sufficient in rice, its food security profile will rise, the price of the commodity will gradually reduce and it will save Nigeria foreign exchange used in importing this international product.

Consequently, Food insecurity is arguably the most tormenting issue among the challenging socio-economic problems for many countries and, particularly developing economies like Nigeria, with tremendous human and natural resources. It is widely believed that Nigeria has a comparative resource advantage in the production of rice, enabling it to reach self-sufficiency. Despite this, rice importation in Nigeria has continuously represented a significant share of total food imports, despite growing government efforts to improve home grown rice. Rice production in Nigeria has been on a small scale or at a subsistence level, which is insufficient to meet rising local demand. This shortage warranted the augmentation of local rice production through imports from countries such as India, China, Burma, Thailand and the USA. The preference for foreign rice seemingly has further reduced the need for local rice in Nigeria. Therefore, the Nigerian government sees wisdom and embarked on a number of policy initiatives. These range from credit support (Agricultural Credit Guarantee Scheme Funds, Anchor Borrowers Programme) to import restriction (increased tariff on imported rice and closure of land border) on rice, as a way of salvaging and bolstering the local production.

On this note, therefore, one ponders awhile whether the production of local rice has significantly improved as a result of the restrictions. Seemingly uncertain as the price of rice keeps skyrocketing in Maiduguri Metropolis and Nigeria at large. More so, the availability of foreign rice in Nigerian markets abounds amidst the import restriction. These are issues about the subject matter that requires empirical investigation, so long, as the available literature are relatively silent on such empirical documentation of findings. Of course, this is a huge conceptual gap that necessitates or provokes this current study.

As such, a wide literature search reveals a plethora of empirical findings on the subject matter or in the related areas. On the first note, studies on rice production relative to Agribusiness performance of farmers in Nigeria and beyond. The studies include but not limited to Biam and Adejo, (2017), Terwase and Madu (2014), Igberi and Amadi (2017). Secondly, studies in the literature on the distribution of rice

relative to farmer's Agribusiness performance in Nigeria and beyond, include; Oteh, Okpokiri, and Obasi, (2019), Adam, Marwa, Thamrin, and Bashir (2017), Nwali and Anyalor, (2019).

However, as plausible as these empirical findings, none have used the cardinals as level of production efficiency, distribution efficiency, and sales volume to measure agribusiness performance, thereby leaving a wide research gap in the available literature. Lastly, most of the study found in the available literature are conducted in other parts of the country like Yobe, Kebbi, Ebonyi, and Imo state, creating a geographical gap worthy of noting. To fill these gaps, therefore, this study intends to examine the effect of import restriction on agribusiness performance of local rice in Maiduguri Metropolis, Borno State.

### **1.1 Objectives of the Study**

The main objective of the study is to assess the Effect of Import Restriction on Agribusiness performance of Local Rice in Maiduguri Metropolis. The objectives of the study are to:

- i. Examine the effect of import restriction on production efficiency of local rice in Maiduguri Metropolis.
- ii. Assess the effect of import restriction on the distribution efficiency of local rice in Maiduguri Metropolis.

### **1.2 Research Questions**

The research topic is guided by the following questions:

4. To what extent has import restriction influenced the production efficiency of local rice produced in Maiduguri Metropolis?
5. How has import restriction impacted on distribution efficiency of local rice in Maiduguri Metropolis?

### **1.3 Research Hypotheses**

The study is guided by the following research hypotheses.

**H0<sub>1</sub>** Import restriction has no significant influence on production efficiency of local rice in Maiduguri Metropolis.

**H0<sub>2</sub>** Import restriction has not significantly impacted on distribution efficiency of local rice in Maiduguri Metropolis.

## **2. Literature Review**

## **2.1 Agribusiness Performance**

Owen (2006) defines Agribusiness performance as an outcome achieved by a firm in meeting its goals. Wu (2009) also describes Agribusiness performance as the extent to which achieving proposed objectives using resources economically in the face of internal/external environment (stockholders, competitors, society). In the same vein, Aminu and Shariff (2015) explain Agribusiness performance as how firms provide value to their stakeholders such as customers, society and even government. A firm Agribusiness performance is related to the ability of the firm to gain profit and growth in order to achieve its general strategic objectives (Hult et al., 2004). Neely, Gregory, and Platts (1995) asserts that firm Agribusiness performance is the procedure of quantifying business firm actions in terms of how it meets its objective. Objectives can only be accomplished if they succeed in satisfying customers' needs more than competitors.

## **2.2 Import Restriction**

The term "import restrictions" refers to a range of policies that a nation could implement to restrict the entry of products from other nations. With the goal of keeping the country's currency exchange rate stable, import restrictions are put in place (US legal, 2019). The import duties which are being levied on imported goods to increase their cost, import licenses that place a cap on the overall volume of imported products, currency restriction which limits the availability of the amount of foreign exchange for payment of importations, and measures prohibiting the entry of illegal or harmful items are examples of primary import restrictions (US legal, 2019). According to World Trade Organization (WTO, GATT article XI 1994), Member countries are not permitted to impose import restrictions. Exceptions are considered under specific conditions, such as safety mechanisms and human, livestock, and plant health hazards.

Import restrictions are intended to support domestic producers and grow local businesses. However, the high impact of these bans on impoverished people's purchasing power in particular has been extensively documented (Treichel, Hoppe, Cadot, & Gourdon, 2010). Valera (2020) suggests that trade restrictions have positive effects on domestic production, incomes and employments. This finding is consistent with the theoretical postulation of the Protectionists which emphasizes that government should promote exports by placing restrictions on imports. The basic idea of this school of thought is that restricting import of goods and services stimulates domestic production and creates employment, thus providing extra income and jobs in the country.

### **2.3 Production Efficiency of Local Rice**

Production efficiency is an act of harnessing materials and achieving management goals. It is the act of using minimal effort to produce results. Efficiency is everything done to uphold and better productivity capacity of the farm. Ali and Chaudry (1990) observed that measurement of efficiency has remained an area of important research to both the developed and developing countries especially in developing agricultural economies where resources are meagre and opportunities for developing and adopting better technologies are dwindling. According to Lancon (2003), the adoption of efficient manufacturing methods in Nigeria has the potential to enable domestically produced rice to adequately meet the demand of domestic consumers. According to Oryza (2005), urban consumers exhibit a preference for and possess the financial means to purchase imported rice of superior quality, as opposed to local rice brands that are commonly perceived as substandard due to the presence of dirt, stones, chaff, and a significant quantity of broken or irregular grains. Consequently, local rice brands lack a competitive edge over imported rice brands. In Nigeria, there is a clear preference for imported rice over native rice, leading to a higher market price for imported rice. According to Ezedinma (2008), there is a growing demand among urban Nigerians for rice that meets high standards of quality. They consistently evaluate the quality and competitiveness of local rice by comparing it to the current standards and quality of international rice.

### **2.4 Distribution Efficiency of Local Rice**

Rice is an important staple food that more than 60 percent of Nigerian population consumes (Ogundele & Koruna, 2006) and occupies a higher percentage in household food budget. Therefore, its availability and/or affordability are vital in building consumer patronage depending on those factors that influence consumer brand preference. Beyond this fact, the value of a brand lies in the ability of its managers to position and communicate the brand value to meet consumer expectations. Indeed, distribution is a critical component in connecting manufacturers and consumers. In the opinion of Aragrande and Argenti, (2001) distribution efficiency may contribute significant value to the economy. Food distribution efficiency encompasses various stages, as highlighted by the Food and Agriculture Organisation (FAO, 1996), which encompass food storage, processing, transportation, packaging, and marketing.

According to Godfray et al. (2010), the presence of infrastructure and storage technology inside the food distribution network can significantly influence the quantity of food that is wasted throughout the distribution process. Moreover, according to Tweeten (1999), insufficient transport infrastructure can lead to an increase in prices in the global market. Additionally, he asserted that the global per capita food production has exceeded the per capita demand. However, the occurrence of food insecurity in

many regions can be attributed to the inadequate distribution of food items, which poses a significant obstacle to attaining food security.

## 2.5 Empirical Review

Owoade, Umar, Abubakar and Abdulhakeem (2021) assessed the effect of importation ban on rice production efficiency in Bade, Yobe State. Data was collected by the administration of questionnaires and conducting oral interviews with a total of 110 respondents. The findings indicated that the implementation of the importation prohibition policy by the Federal Government of Nigeria resulted in a notable augmentation in the production of paddy rice. To achieve national self-sufficiency in rice production, the report suggests strengthening the government's proactive measure of implementing a ban on rice imports.

Ogunniyi, Komolafe, Fanifosi, and Rasaki (2015) examined production efficiency of rice production in kwara state, Nigeria. The study made use of cross-sectional data to obtain information from 120 rice farmers in the four agricultural zones of Kwara State. The result indicates that, the rice farmers were not technically efficient. The mean efficiency was 0.548 and 0.681 under CRS and VRS specifications respectively indicating that there was a 45.2% and 31.9% allowance for improving efficiency. The result also shows that majority (82.5%) of the farmers were operating with increasing return to scale while 17.5% were under constant return to scale. The result further reveals that age, education, experience and farm size significantly influence the farmers' efficiency.

Shehu (2013) assessed the production efficiency among rice farmers in north-eastern Nigeria. Farm-level data was collected from a sample of 270 rice farmers during 2010/2011 cropping season using interview schedule. Stochastic frontier production function and two-limit Tobit regression was used as analytical tools. The empirical result indicates that mean technical, allocative and economic efficiencies of the farmers were 69.1%, 66.1% and 37.6% respectively suggesting that there is still room for improvement. Family size, extension contact, access to credit and system of land ownership significantly were the determinants of production efficiency. The study found that the rice producers were not fully efficient in the use of productive resources. The study proposed that policies that would enhance access to credit should be pursued. Also, the agricultural extension programme should be strengthened for increased service delivery and efficiency of farmers.

Rapu (2016) evaluated the impact of policies on production efficiency of Nigeria's rice economy. Data were collected from a cross-section of 300 paddy rice farmers drawn from 3 states in Nigeria. The study used 2 estimation techniques: parametric technique (SF) and the non-parametric technique (DEA). The results showed that paddy rice production in Nigeria was still profitable but low and the estimated average technical and cost efficiency levels from the DEA approach were 0.721 and 0.295, respectively.

Evidence suggests that the formulation and implementation of subsidy programs on farm inputs were relevant in the variations of technical and cost efficiency levels across rice farm households. The study findings support the continuity of the subsidy policies to encourage increased rice production; they also suggest that governments should address the issues of post-harvest losses, degrading irrigation facilities, and ineffective rural development policies.

Igberi and Amadi, (2017) evaluated how the import restriction impacts rice production in Nigeria. The objective of this study is to enhance comprehension of the prevailing policies throughout that period, with the aim of proposing pragmatic resolutions to the enduring challenge of achieving rice self-sufficiency. The study suggests that import restrictions should not be entirely disregarded as a feasible approach to enhance domestic rice production. Instead, it emphasises the need for improved enforcement procedures and rigorous adherence to the policy. Additionally, the study suggests implementing policies that encourage both public and private capital investment and development.

The study of Biam and Adejo, (2017) assessed the rice import trend in Nigeria and its effect on the domestic production from 1970 to 2013. The study included yearly time series data pertaining to domestic rice production, imported rice, and rice consumption. The ordinary least squares (OLS) regression approach was employed for the purpose of data analysis. The analysis revealed a sudden increase of 5.7% in local rice production and a cumulative increase of 5.9%. In contrast, the imports of rice had a 12.3% and 12.7% surge, respectively. This implies that the rate of rice production will increase more rapidly than the rate of imports. Instead of relying on rice imports, which would exhaust the country's foreign reserves, the report proposed that Nigeria should enhance its local rice production by increasing yield to counterbalance its anticipated domestic rice consumption.

## **2.6 Resourced Based-view (RBV)**

The theory was developed by Barney (1991). The theory suggests that firms can be conceptualised as bundles of resources. That is, resources possessed by firms are the primary determinant of their Agribusiness performance and these may contribute to its sustainable competitive advantage. According to Barney, the concept of resources includes all assets, capabilities, organisational processes, firm attributes, information, reputation and knowledge controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness.

A resource is anything that could be thought of as a strength or weakness of a given firm (Wernerfelt, 1984). The unique, immobile resource of a firm ensures its competitive advantage in creating value and gaining income from it (Raziq and Wiesner, 2016). Resources of a firm could be tangible and intangible. Akhtar et al (2015) treated intellectual capital (IC) as an intangible resource that a sustainable firm should possess to create value within limited resources and minimal impact on the environment. In

addition, Sachitra and Sion-Choy (2017) identified institutional capital (tangible resource) and dynamic capabilities (intangible resource) impact on competitive advantage of a firm. Tuan Hassan, Yaacob and Abdullatif (2014), on the other hand, reported that proper resource management strategy is crucial for agribusiness SMEs in order sustain during tight business environment. Yusi and Idris (2016) discussed the importance of rural banking implementation on SMEs' financing, management skills and monitoring efforts. Thus, it could be inferred that management of both tangible and intangible resources are interrelated to encourage each other and lead to the sustainability of the firm.

According to RBV, firms gain competitive advantage by acquiring and managing valuable resources that enhance efficiency. In the context of production, valuable resources can include advanced machinery, skilled labour, efficient production processes, and superior raw materials. These resources help in reducing waste, improving quality, and speeding up production times, leading to higher production efficiency.

Similarly, the RBV proponents argue that simultaneously valuable, rare, inimitable and non-substitutable resources can be a source of superior Agribusiness performance and may enable the firm to achieve sustained competitive advantage. The supporters of the view argue that organisation should look inside the company to find the sources of competitive advantage instead of looking at competitive environment for it.

### **3. Methods**

The population is divided into two groups, namely the rice producers and the rice distributors (sellers). The sample frame of the rice producers comprises 42,475 farmers obtained from the Borno State FADAMA coordination office. Whereas the sample frame of the rice distributors is 870 across the communities/wards in Maiduguri Metropolis (Rice Marketers Association, 2023). The sample size for the study is 670 which is estimated using Taro Yamane Formula. The study adopted Stratified and simple random sampling techniques in selecting the sample from the population of the study. The sample of the study was stratified into two groups, rice producers (farmers) and rice distributors (sellers). While the simple random sampling technique was employed to identify and selected the respondents of the study. The data for this study were gathered from primary source. The primary data was obtained from the rice farmers, and rice sellers in the communities through the use of structured questionnaires. The respondents were provided with instructions in details on how to complete and return the questionnaires. The questionnaires were administered to the rice farmer and rice sellers to elicit relevant information. The study is going to adopted the use of five-point Likert scale ranging from 1= 'strongly agree' to 5 = 'strongly disagree'. Data collected was analysed employing regression analysis to test the formulated hypotheses using SPSS version 25. This is done to determine the degree of connection

among the variables of the study. Specifically, regression analysis procedure was employed to determine the effect of Import Restriction on the Production and Distribution Efficiencies on Agribusiness of Local Rice in Maiduguri Metropolis, Nigeria

#### 4. Results

##### 4.1 Common Method Variance Test

Common method variance (CMV) was checked using total variance explained as suggested by Podsakoff, MacKenzie, Lee, and Podsakoff, (2003). The un-rotated factor results indicated that there is no single factor that accounted for up to 50% of the total variance in the study. The results from the analysis generated from the rice producers, rice distribution, and sales volume suggested that the first factors in each of the three groups accounted for 43.79%, 46.744, and 44.095 of the whole variances for the three sample. These results are below the verge of 50% as suggested by (Lowry & Gaskin, 2014; Podsakoff, MacKenzie, & Podsakoff, 2012). Therefore, the results advocated that there is no issue of CMV in the study (Jakobsen & Jensen, 2015; Lowry & Gaskin, 2014; Podsakoff et al., 2003).

Therefore, table 1 present the results of the CMV.

Table 1: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
<b>Local Rice Production Efficiency</b>						
1	1.476	43.790	43.790	1.476	43.790	43.790
2	0.524	56.210	100.000			
<b>Local Rice Distribution Efficiency</b>						
1	1.335	46.744	46.744	1.335	46.744	46.744
2	0.665	53.256	100.000			

##### 4.2 Test

Normality evaluation examined the Skewness and Kurtosis values for all variables of the study. The acceptable threshold statistical values for Skewness and Kurtosis are  $< 3$  and  $< 8$  respectively (Hair, Black, Babin, Andersen, & Tatham, 2006). Table 4.1 shows that the Skewness values for all the three samples are within the threshold. Thus, the data is normally distributed. Therefore, Table 2 present the Normality Test for Skewness and Kurtosis Statistics.

Table 2: Normality Test: Skewness and Kurtosis Statistics (n=393)

Variables	N	Skewness		Kurtosis	
		Statistic	Std. Error	Statistic	Std. Error
<b>Local Rice Production Efficiency</b>					
Import Restriction	396	-0.450	0.350	-1.162	0.688
Rice Production	396	-0.067	0.350	-0.442	0.688
<b>Local Rice Distribution Efficiency</b>					
Rice Distribution	274	-0.674	0.130	-0.053	0.259
Import Restriction	274	0.265	0.130	0.742	0.259

#### 4.3 Descriptive Statistics of the Variables

This section is concerned with the descriptive statistics of the research variables. Descriptive statistics in the form of means and standard deviations for the variables (Sassenberg, Matschke, & Scholl, 2011). Therefore, for rice producers, the mean for import restriction is 3.80 and the standard deviation is 1.20. For rice production the mean is 3.62 and the standard deviation is 1.22. In relation rice distribution, the mean for import restriction is 3.89 and the standard deviation is 1.02. For rice distribution the mean is 3.76 and the standard deviation is 0.95. As regards to sales volume, the mean for import restriction is 3.89 and the standard deviation is 1.02. For rice sales volume the mean is 3.65 and the standard

deviation is 1.01. This implies that the responses of the respondents are moderate. Table 3 shows that the descriptive statistics.

Table 3: Descriptive Statistics of the Variables

Variables	N	Mini mum	Maxim um	Mean	Std. Deviation
<b>Rice Production Efficiency</b>					
Import Restriction	396	1.00	5.00	3.8000	1.20344
Rice Production Efficiency	396	1.10	5.00	3.6283	1.22429
<b>Distribution Efficiency</b>					
Import Restriction	274	1.00	5.00	3.89	1.028
Rice distribution Efficiency	274	1.00	5.00	3.76	0.957

#### 4.4 Reliability of the Instruments

According to Sekaran and Bougie, (2013), reliability refers to the consistency and suitability of instruments used in measuring variables in a research work. The results of the analysis show that rice producers, import restriction has Cronbach alpha of 0.724, while the Cronbach alpha for rice production is 0.791. For rice distribution, import restriction has Cronbach alpha of 0.805, while the Cronbach alpha for rice distribution is 0.763. Lastly, for sales volume, import restriction has Cronbach alpha of 0.705, while the Cronbach alpha for rice sales volume is 0.763. These indicated that all the measures have adequate reliability values (Hair, Wolfenbarger, Ortinau, & Bush, 2010; Nunnally & Bernstein, 1994; Sarstedt, Ringle, & Hair, 2017). Table 4 shows the reliability results of the variables.

Table 4: Rice Production Efficiency Reliability Statistics

Variables	Number of Items	Cronbach's Alpha
<b>Rice Production Efficiency</b>		
Import Restriction		0.724
Rice Production Efficiency		0.791
<b>Rice Distribution Efficiency</b>		
Import Restriction		0.805
Rice Distribution Efficiency		0.763

#### 4.5 Hypothesis Testing for Relationships

Regression analysis was engaged in analysis of the hypotheses of the study. The regression analysis was conducted to determine whether there is association among the import restriction and local rice production, local rice distribution, and sales volume of local rice.

Hypothesis One: There is no Significant Effect of Import Restriction on Local Rice Production Efficiency. The regression analysis evaluated the effect of import restriction on local rice production. The results show that  $\beta = 1.005$ , T statistics = 37.291 and P values = 0.000. This indicated that there is positive significant effect of import restriction on local rice production. It implies that the more restriction is placed on the importation of rice, the more local production of rice would increase. Therefore, the hypothesis which states that there is no significant effect of import restriction on rice production is rejected. Table 5 present the results of the hypothesis testing.

Hypothesis Two: There Is No Significant Effect of Import Restriction on Local Rice Distribution Efficiency. The regression analysis evaluated the effect of import restriction on local rice distribution. The results show that  $\beta = 0.335$ , T statistics = 5.862 and P values = 0.000. This indicated that there is

positive significant effect of import restriction on rice distribution. It implies that the more restriction is placed on the importation of rice, the more local production of rice would increase and hence would increase the volume of distribution. Therefore, the hypothesis which states that there is no significant effect of import restriction on rice production is rejected. Table 5 present the results of the hypothesis testing.

Table 5: Hypotheses Testing on Import Restriction and Rice Distribution Efficiency

<b>Variables</b>	<b>Beta</b>	<b>T</b>	<b>Sig.</b>	<b>Decision</b>
Import Restriction	0.335	5.862	0.000	Rejected
Import Restriction	0.985	37.291	0.000	Rejected

a. Dependent Variable: Rice Distribution Efficiency

b. Dependent Variable: Rice Production Efficiency

#### **4.6 Assessment of R<sup>2</sup>**

The sum of R square value designates the strength of the import restriction on rice production, rice distribution, and rice sales volume. If the R square value is greater than 0.49, the strength of relationship is considered very considerable. If the R square value is range from 0.26 to 0.49, the strength of relationship is considered as substantial. Whereas, if the R square value range from 0.13 to 0.26, the strength of association is considered as average.

While, if the R square value is 0.02 to 0.13, the strength of relationship is considered small (Falk & Miller, 1992; Sarstedt et al., 2017). Thus, in this study, the R square coefficient for rice production is 0.969, for rice distribution is 0.412, and rice sales volume is 0.507. These values indicated that the model has an acceptable degree of criterion validity and explained 96 percent of the variance in the local rice production. Consequently, it is resolved that the connection between the import restriction and local rice production is substantial. Table present the results of the R square.

Table 6: the results of the R square

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
<b>R Square for Rice Production Efficiency</b>				
1	0.985 <sup>a</sup>	0.969	0.969	3.22030

a. a. Dependent Variable: Rice Production

**R square for Rice Distribution Efficiency**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.335 <sup>a</sup>	0.412	0.409	1.78539

a. Dependent Variable: Rice Distribution Efficiency

**4.7 Discussion of Findings**

This study examined the effect of import restriction on Agribusiness performance of local rice business on Maiduguri Metropolis. Two research hypotheses were stated and tested. Hypothesis one tested shows that import restriction has a positive significant effect on local rice production, this finding align with the findings of Owoade et al. (2021), who found that importation prohibition policy led to a significant increase in domestic rice output. The finding also in agreement with the findings of Oggunniyi, Komolafe, Fanifosi, and Rasaki (2015) which revealed that utilization of up-to-date and well-maintained technology increased production efficiency.

The second hypothesis tested in this study revealed that import restriction has a beneficial and significant effect on distribution efficiency of local rice. This finding is in agreement with the finding of Aguilar, et al., (2018), which revealed that import restriction policy has a positive and significant effect on distribution and marketing of automobiles in Ecuador. The finding also aligns with the finding of Adam, Marwa, Azwardu, and Bashir, (2017) which showed that Local rice is well positioned in the market than the imported rice.

**5. Recommendations**

1. Based on the results of the first hypothesis, Nigerian rice farmers should intensify their efforts to produce more rice efficiently and effectively by only planting latest variety of rice so as to produce more tonnage using the same resources. This will improve volume of production so that prices of local rice can be reduced sufficiently enough for all to afford. They should further device better means of processing local rice to meet global best standard where there would be no stones, cuts and stains. This will make their produce attractive to all class of Nigerians while also favourably competing with foreign rice should they make attempts to export. Local farmers should be mindful that the world is their market, this consciousness can be imbibed into them by agricultural extension workers.
2. Based on the results of the second hypothesis, Nigerian rice sellers and distributors should be patriotic enough not to inflate the price of local rice. Farmers often submit that the prices of rice in the market is not a fair representation of the price at which they sold their products to middle men. These sellers should be made aware that the rice sub-sector is one that successive government have invested so much and the nation deserved to reap the dividend of these investments. Consequently, this sector must not be left to middle men who has unbridled affinity for profit maximisation.

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